

NEW OR LITTLE-KNOWN SPECIES OF WEST INDIAN TIPULIDAE (DIPTERA). III.

By CHARLES P. ALEXANDER,
Massachusetts State College, Amherst, Massachusetts

The second part under this general title appeared in this Journal, vol. XXI, No. 2, pages 179-190. At this time I wish to discuss some unusually interesting collections taken in Oriente, Cuba, and sent to me through the continued friendly interest of Director Julián Acuña and Mr. Lawrence C. Bruner. Through the kindness of the two latter scientists, I am privileged to retain the novelties herein discussed in my collection of these flies. The specimens recorded herewith were taken chiefly on two collecting excursions to the mountainous sections of Oriente: Loma del Gato, Sierra del Cobre, altitude 2600-3325 feet, September 25-30, 1935 (Acuña, Bruner and Scaramuzza). Pico Turquino, Sierra Maestra, altitude 1650-6000 feet, in June 1936 (Julián Acuña and P. J. Darlington, Jr.). The majority of the latter were taken at light, Cueva del Aura, altitude 3750 feet, on the night of June 12, 1936.

Dolichopeza (Megistomastix) devexa sp. n.

Size large (wing, 10 mm. or more); general coloration dark brown; antennae (male) nearly as long as body, the pubescence and verticils of the flagellar segments short; wings with a brown tinge; stigma oval, dark brown; abundant trichia in cells of outer half of wing; male hypopygium with lateral portions of tergite not produced; basistyle extended into a slender, pale arm, the tip set with strong black spines.

Male.—Length about 10-11 mm.; wing 10-11 mm.; antenna 9-10 mm.

Female.—Length about 10 mm.; wing 10 mm.

Frontal prolongation of head, together with the palpi, black. Antennae (male) nearly as long as the body; scape dark brown; pedicel yellow; flagellar segments black, the more basal ones with the incisures very restrictedly pale; segments long-cylindrical, with a short erect pale pubescence; verticils relatively short and inconspicuous, about two or two and one-half times the length of the pubescence. Head grayish brown.

Mesonotal praescutum and scutum dark brown, the former with a capillary darker median vitta; posterior sclerites of notum paler brown. Pleura chiefly dark brown, the posterior sclerites and pleurotergite paler. Halteres darkened, the base of stem restrictedly paler. Legs with the coxae dark; trochanters obscure yellow; remainder of legs black, the femoral bases restrictedly obscure yellow. Wings (Fig. 1) with a brown tinge; stigma oval, dark brown; restricted dark seams on anterior cord *m-cu*; veins and macrotrichia dark. Abundant trichia in all outer cells of wing (indicated in figure by stippling).

Venation: Sc_2 ending opposite origin of R_s ; R_{1+2} atrophied or (as figured) represented by a basal spur.

Abdominal segments obscure brownish yellow, the caudal portions of the segments darker; second tergite with a dark ring at near midlength; hypopygium chiefly pale. Male hypopygium (Fig. 9) with the caudal margin of tergite, qt , subtransverse or only gently convex, the lateral ends not produced into lobes. Basistyle, b , produced into a slender pale arm, the apex set with abundant blackened spines. Outer dististyle, od , elongate, strongly angulated at near midlength and here produced into a setiferous lobe. Eighth sternite with caudal margin produced into a tongue-like median lobe.

Habitat.—Cuba (Oriente).

Holotype, ♂, Pico Turquino, Sierra Maestra, altitude 6,000 feet, June 20, 1936 (Acuña). Allotopotype, ♀ altitude 5100–5200 feet, June 12, 1936 (Acuña). Paratopotypes, 1 ♂, altitude 6000 feet, June 12, 1936; 1 ♂, altitude 3750 feet, June 12, 1936 (Acuña).

Dolichozepea (Megistomastix) deveva is very different from the other regional species in its large size and structure of the male hypopygium. Both of the Cuban species hitherto made known are very small, whereas the present species rivals in size the largest Puerto Rican member of the subgenus discovered to this date.

Limonia (Discobola) gowdeyi Alexander.

Pico Turquino, altitude 3750 feet, June 12, 1936 (Acuña).

This species has three dark femoral rings.

Limonia (Discobola) gowdeyi Alexander.

Pico Turquino, A. Naranjo, altitude 1650 feet, June 12, 1936 (Acuña). Loma del Gato, Sierra del Cobre, altitude 2600–3325 feet, September 25–30, 1935 (Acuña, Bruner & Scaramuzza).

Limonia (Limonia) caribaea Alexander.

Loma del Gato, Sierra del Cobre, altitude 2600–3325 feet, September 25–30, 1935 (Acuña, Bruner & Scaramuzza).

Limonia (Limonia) hoffmani Alexander.

Loma del Gato, Sierra del Cobre, altitude 2600–3325 feet, September 25–30, 1935 (Acuña, Bruner & Scaramuzza). The species had not been recorded from Cuba.

Limonia (Rhipidia) schwarzi (Alexander).

Pico Turquino, Sierra Maestra, altitude 1650–3750 feet, June 12, 1936 (Acuña). Loma del Gato, Sierra del Cobre, altitude 2600–3325 feet, September 25–30, 1935 (Acuña, Bruner & Scaramuzza).

Limonia (Dicranomyia) reticulata (Alexander).

Pico Turquino, Sierra Maestra, altitude 3750 feet, June 12, 1936 (Acuña). Loma del Gato, Sierra del Cobre, altitude 2600-3325 feet, September 25-30, 1935 (Acuña, Bruner & Scaramuzza).

Limonia (Dicranomyia) trinitatis Alexander.

Pico Turquino, Sierra Maestra, altitude 3750 feet, June 12, 1935 (Acuña). Loma del Gato, Sierra del Cobre, altitude 2600-3325 feet, September 25-30, 1935 (Acuña, Bruner & Scaramuzza).

Limonia (Geranomyia) myersiana Alexander.

Pico Turquino, Sierra Maestra, altitude 1650-3750 feet, June 12, 1936 (Acuña).

Orimarga (Diotrepha) flavicosta (Alexander).

Pico Turquino, Sierra Maestra, altitude 3750 feet, June 12, 1936 (Acuña). Loma del Gato, Sierra del Cobre, altitude 2600-3325 feet, September 25-30, 1935 (Acuña, Bruner & Scaramuzza).

These specimens are all smaller than the type series (Blue Mountains, Jamaica) but agree in all other essentials and surely appear to be conspecific.

Epiphragma (Epiphragma) cubensis Alexander.

Pico Turquino, A. Naranjo, Sierra Maestra, altitude 1650 feet, June 12, 1936 (Acuña). Loma del Gato, Sierra del Cobre, altitude 2600-3325 feet, September 25-30, 1935 (Acuña, Bruner & Scaramuzza). Los Llanos, Oriente Maisi, February 5, 1929 (Acuña). Buenos Aires, Trinidad Mountains, altitude 2350-2800 feet, May 3, 1932 (Bruner & Otero).

Shannonomyia phragmophora sp. n.

General coloration dark brownish gray; halteres pale yellow throughout; legs yellow, the terminal tarsal segments darkened; wings light yellow, with a heavy brown pattern that is restricted to the vicinity of the veins; *R*_s long, connected with vein *M* by a supernumerary crossvein in cell *R*; *R*₂ shortly before fork of *R*₃ + ₄; cell 1st *M*₂ elongate, exceeding vein *M*₁ + ₂ beyond it; basal section of *M*₃ not in transverse alignment with *m*, arcuated to weakly angulated; abdomen dark brown, hypopygium brighter.

Male.—Length about 5-5.5 mm.; wing 5.5-6 mm.

Female.—Length about 6.5-7 mm.; wing 6-6.5 mm.

Rostrum and palpi black. Antennae short; basal segments yellow, the outer half of flagellum passing into brown; basal flagellar segments subglobular to short-oval, the outer segments slightly longer. Head brownish gray.

Mesonotum dark brownish gray, the praescutum somewhat clearer gray dorso-medially, the humeral portions slightly more brightened. Pleura blackish, pruinose. Halteres pale yellow throughout. Legs with the coxae dark brown, pruinose; trochanters obscure yellow; femora brownish yellow; tibiae and tarsi clearer yellow, the outer tarsal segments darkened. Wings (Fig. 2) light yellow, with a conspicuous brown pattern, as follows: Areculus; origin of R_s and supernumerary crossvein in cell R ; Sc_2 ; cord and outer end of cell $1st M_2$; marginal spots at ends of all longitudinal veins, smallest on R_s ; veins yellow, darker in the clouded areas. Venation: Sc_1 ending about opposite three-fourths the length of the long R_s ; a supernumerary crossvein in cell R , connecting vein M with the basal portion of R_s ; R_2 a short distance before fork of $R_3 + 4$; cord oblique, $r-m$ much arcuated; cell $1st M_2$ unusually elongate, considerably exceeding in length vein $M_1 + 2$ beyond it; basal section of M_2 more than twice m , arcuated to feebly angulated at near midlength; $m-cu$ about its own length beyond fork of M or a little less.

Abdomen dark brown, the surface sparsely pruinose; hypopygium obscure yellow to yellowish brown.

Habitat.—Cuba (Oriente).

Holotype, ♂, Pico Turquino, Sierra Maestra, altitude 3750 feet, at light, June 12, 1936 (Acuña). Allotopotype, ♀ h. Paratopotypes, 12 ♂ ♀.

The present fly is very different from the two other known species of *Shannonomyia* having a supernumerary crossvein in cell R (*mesophragma* Alexander, *mesophragmoides* sp. n.). The elongate cell $1st M_2$, with the elements closing its outer end not lying in transverse alignment, is distinctive of the species.

The various species of *Shannonomyia* now known from Cuba may be separated by the following key:

1. A supernumerary crossvein in cell R , connecting the long R_s with vein M_2 .
No supernumerary crossvein in cell R , R_s relatively short.
2. Cell $1st M_2$ elongate, longer than any of the veins beyond it; basal section of M_2 not in transverse alignment with m . (Fig. 2.)
S. phragmophora sp. n.

Cell $1st M_2$ shorter than vein $M_1 + 2$ beyond it; veins closing cell $1st M_2$ in approximate transverse alignment.

3. General coloration of mesonotum brownish yellow; wings yellowish, with a heavy brown pattern, including marginal areas at ends of veins R_3 and R_4 ; a dark cloud at areculus.

S. mesophragma Alexander

General coloration of mesonotum dark brown; wings with a weak brown tinge, restrictedly patterned with brown; marginal dark clouds sparse, small or lacking at ends of veins R_3 and R_4 ; no dark cloud at areculus. (Fig. 3).

S. mesophragmoides sp. n.

4. Wings unpatterned, except for the stigma and a darkened area at origin of *Rs*.

S. scaramuzzai Alexander

Wings with a dark pattern, including a series of marginal clouds at ends of all longitudinal veins excepting *R*₅.

5. Cell *R*₃ very short; *R*₂ far before fork of *R*₂+₃+₄, the latter element exceeding vein *R*₃ alone; mesonotum and pleura light reddish brown. (Fig. 5).

S. brevicula Alexander.

Cell *R*₃ long, *R*₂ lying at or close to fork of *R*₂+₃+₄, shortening or obliterating *R*₃+₄; mesonotum and dorsal pleura dark brown. (Fig. 4.) (*bruneriana* and race).

6. Antennae (male) very small, scarcely longer than the combined head and pronotum.

S. bruneriana bruneriana sp. n.

Antennae (male) larger and more powerfully constructed, if bent backward extending to shortly before wing-root.

S. bruneriana forticornis subsp. n.

Shannonomyia mesophragmoides sp. n.

Allied to *mesophragma*; general coloration of thorax and abdominal tergites dark brown; wings with a weak brown tinge, restrictedly patterned with brown; a supernumerary crossvein in cell *R*; cell 1st *M*₂ of moderate length, the elements closing its outer end in transverse alignment, the cell shorter than vein *M*₁+₂ beyond it.

Male.—Length about 5–6.5 mm.; wing 5.5–7 mm.

Female.—Length about 6.5 mm.; wing 6.5 mm.

Rostrum and palpi black. Antennae short; scape brown; pedicel and flagellum black; flagellar segments short-oval, the verticils exceeding the segments. Head dark gray.

Thorax almost uniformly dark brown, the praescutum with a single median darker vitta; humeral region of praescutum not brightened. Halteres with stem pale, knob weakly darkened. Legs with the coxae yellowish brown to testaceous; trochanters yellow; femora brownish yellow; tibiae and tarsi dark brown. Wings (Fig. 3) with a weak brown tinge, the costal and prearcular portions a trifle more yellowish; a restricted brown pattern, including the origin of *Rs* and supernumerary crossvein in cell *R*; *Sc*₂; stigma; cord and outer end of cell 1st *M*₂; very small to scarcely evident darker marginal clouds at ends of longitudinal veins, from *R*₃ to 2nd *A*, lacking or virtually so on *R*₄; veins brown. Venation: *Rs* long, exceeding twice *R*₂+₃+₄; a supernumerary crossvein in cell *R*, connecting base of *Rs* with about the middle of *M*; *R*₂ at or just beyond fork of *R*₂+₃+₄; cell 1st *M*₂ of moderate length, shorter than vein *M*₁+₂ beyond it; elements closing outer end of cell 1st *M*₂ in approximate transverse alignment, *m* shorter than the basal section of *M*₃; *m-cu* about two-thirds its length beyond the fork of *M*.

Abdominal tergites and subterminal sternites dark brown; basal sternites obscure yellow; hypopygium yellowish brown.

Habitat.—Cuba (Oriente).

Holotype, ♂, Pico Turquino, Sierra Maestra, altitude 3750 feet, at light, June, 1936 (Acuña). Allotopotype, ♀, pinned with type. Paratopotypes, 5 ♂ ♂.

The relationship of the present fly with *Shannonomyia mesophragma* Alexander is best shown by the key given with the account of the preceding species.

Shannonomyia bruneriana sp. n.

General coloration dark grayish brown, the pretergites conspicuous, clear silvery-white; halteres pale, the knobs weakly darkened; wings yellowish gray, with a relatively heavy brown pattern; *Rs* of moderate length; *R*₂ at or shortly before fork of *R*₃₊₄; cell 1st *M*₂ shorter than vein *M*₁₊₂ beyond it, the elements closing its outer end in transverse alignment.

Male.—Length about 4.8–5 mm.; wing 5–5.3 mm.

Female.—Length about 5.8–6 mm.; wing 5.8–6 mm.

Rostrum dark brown; palpi black. Antennae with scape and pedicel light yellow; flagellum black; antennae relatively small, in the male scarcely longer than the combined head and pronotum. Head ashy gray.

Pronotum ashy gray. Mesonotum dark grayish brown; pretergites clear silvery-white, conspicuous. Pleura dark brown, the sternopleurite paler. Halteres pale, the knobs weakly darkened. Legs with the fore coxae darker than the others; trochanters yellow; legs yellow, the terminal tarsal segments darker. Wings (Fig. 4) yellowish gray, the prearcular and costal regions clearer yellow; a relatively heavy brown pattern, distributed as follows: Areulus; origin of *Rs*; *Sc*₂; stigma; cord and outer end of cell 1st *M*₂; a marginal series of spots on all longitudinal veins with the exception of *R*₅, largest on *R*₄ and 2nd *A*; veins pale, darker in the clouded areas. Venation: *Sc*₁ ending about opposite three-fourths the length of the relatively short *Rs*; *R*₂ at or shortly before fork of *R*₃₊₄; tip of vein *R*₄ rather strongly upcurved; *r-m* moderately to strongly arcuated; cell 1st *M*₂ shorter than vein *M*₁₊₂ beyond it, the elements closing its outer end in transverse alignment; *m-cu* some distance beyond fork of *M*.

Abdomen dark brown; hypopygium paler brown.

Habitat.—Cuba (Oriente).

Holotype, ♂, Pico Turquino, Sierra Maestra, altitude 3750 feet, at light, June 12, 1936 (Acuña). Allotopotype, ♀, pinned with type. Paratopotypes, 10 ♂ ♀.

Shannonomyia bruneriana forticornis sub sp. n.

Characters as in the typical form, differing in the nature of the antennae, which in the male sex are larger and more powerfully constructed than in the typical form, if bent backward extending to shortly before the wing-root.

Habitat.—Cuba (Oriente).

Holotype, ♂, Pico Turquino, Sierra Maestra, altitude 6000 feet, June 17, 1936 (Acuña). Allotopotype, ♀. Paratopotype, 8 ♂ ♀, with the type; 1 ♂, altitude 3750 feet, June 12, 1936 (Acuña).

I take great pleasure in naming this interesting new *Shannonomyia* in honor of Mr. Stephen C. Bruner, to whom I am indebted for much friendly co-operation in studying the Tipulidae of Cuba. The relation of *bruneriana* and its high-altitude form, *forticornis*, is indicated in the key provided with the description of *Shannonomyia phragmophora* sp. n.

Hexatoma (Eriocera) juliana sp. n.

Size large (wing, female, 17.5 mm.); thorax and abdomen orange, the sixth abdominal segment blackened; head dull black; legs and halteres black, the bases of the fore femora restrictedly yellow; wings whitish subhyaline, heavily patterned with dark brown, including a broad margin that almost encircles the wing, together with broad, entire, transverse seams at level of origin of *Rs*, cord and outer end of cell *1st M*₂; basal section of vein *R*₅ longer than *r-m*; veins issuing from cell *1st M*₂ relatively short, vein *M*₃ being about as long as the cell.

Female.—Length about 19 mm.; wing 17.5 mm.

Rostrum black, sparsely gray pruinose; palpi black. Antennae black throughout, 9-segmented; flagellar segments two and three subequal in length, succeeding segments gradually decreasing in length; terminal segment about a fifth longer than the penultimate. Head dull black, very sparsely pruinose; a small tubercle immediately behind each antennal fossa; median vertical tubercle small and very poorly developed.

Thorax entirely fiery orange, unmarked except for a more brownish suffusion and weak pruinosity on the outer half of the mesonotal scutellum. Halteres black throughout. Legs with the coxae and trochanters orange; remainder of legs black, the fore femora with nearly the basal fourth yellow. Wings (Fig. 6) with the ground-color whitish subhyaline, heavily patterned with dark brown, so as to leave extensive fenestrate areas of the ground before origin of *Rs*, before and beyond the cord; additional areas of the ground in outer end of cell *Cu* and involving most of cell *1st A*; posterior border of cell *2nd A* narrowly grayish; the brown pattern includes the prearcular and costal borders, the latter continued almost around the wing-margin to the end of vein *2nd A*, thence as a seam the length of the latter vein; broad dark seams beyond arculus, at level of origin of *Rs*, along cord and on outer end of cell *1st M*₂; all veins dark-colored, seamed with brown, very narrowly and insensibly so in the interspaces. All longitudinal veins beyond cord with abundant, complete series of trichia. Venation: Basal section of vein *R*₅ longer than *r-m*; *R*₂ just beyond fork of *R*₂ + ₃ + ₄, the latter a little longer than *R*₃ but shorter than *R*₄; veins issuing from cell *1st M*₂ relatively short, vein *M*₃ about as long as the cell, *M*₄ much shorter; *m-cu* a little more than one-third its length beyond the fork of *M*.

Abdomen fiery orange, the sixth segment blackened excepting the restricted margins; genital segment orange; cerci elongate, horn-yellow, except for the darkened basal portion.

Habitat.—Cuba (Oriente).

Holotype, ♀, Pico Turquino, Sierra Maestra, altitude 5100–5200 feet, June 12, 1936 (Acuña).

Allotopotype, ♂, Pico Turquino, north side, altitude 4500–6000 feet, June 18–20, 1936 (Darlington). Paratopotypes, 1 ♂, 1 ♀, with the allotype; Museum of Comparative Zoölogy, Cambridge.

This striking species of crane-fly is named in honor of the collector, Director Julián Acuña, of the Estación Experimental Agronómica, Santiago de las Vegas, Cuba, to whom I express my sincere thanks for numerous specimens of Cuban Tipulidae. The only regional species that at all resembles the present fly is *Hexatoma (Eriocera) cubensis* Alexander, which is much smaller and has the wing-pattern and venation quite distinct, the veins beyond cell 1st M_2 being much longer than the cell.

Atarba (Atarba) angustipennis Alexander.

Pico Turquino, Sierra Maestra, altitude 3750 feet, June 12, 1936 (Acuña). Loma del Gato, Sierra del Cobre, altitude 2600–3325 feet, September 25–30, 1935 (Acuña, Bruner & Scaramuzza).

Teucholabis (Teucholabis) bruneri Alexander.

Pico Turquino, Sierra Maestra, altitude 3750 feet, at light, June 12, 1936 (Acuña).

Teucholabis (Teucholabis) myersi Alexander.

Pico Turquino, Sierra Maestra, altitude 3750 feet, June 12, 1936 (Acuña). Loma del Gato, Sierra del Cobre, altitude 2600–3325 feet, September 25–30, 1935 (Acuña, Bruner & Scaramuzza).

Teucholabis (Teucholabis) oteroi Alexander.

One male, Loma de Cunagua, June 24, 1936 (B. T. Barreto & L. C. Scaramuzza). The median dark annulus is clearly defined on the fore and middle femora but is lacking or nearly so on the posterior legs.

Gnophomyia (Gnophomyia) darlingtoni sp. n.

Belongs to the *luctuosa* group; allied to *flavrans*; size relatively small (wing, male, 6 mm.); head black, sparsely pruinose; rostrum, palpi, antennae, halteres and legs black; thorax fiery orange, unmarked; wings with a strong

blackish tinge, relatively narrow; R_2 just before fork of $R_3 + 3 + 4$, $R_2 + 2$ thus being preserved as a short element; abdomen black; male hypopygium with the basistyle narrowed and produced at apex.

Male.—Length about 5.5 mm.; wing 6 mm.

Female.—Length about 8 mm.; wing 7 mm.

Rostrum and palpi black. Antennae black throughout; basal flagellar segments short-oval, the outer ones a little more elongate; verticils dense, longer than the segments. Head black, sparsely gray pruinose.

Prothorax and mesothorax entirely fiery orange, unmarked. Halteres black. Legs with the coxae orange-yellow; trochanters more brownish yellow; remainder of legs black. Wings (Fig. 7) relatively narrow, strongly tinged with blackish; posterior cells of wing from M to caudal margin paler in color; veins and trichia black. Abundant coarse macrotrichia in outer cells of wing (indicated in figure by stippling). Venation: Sc_1 ending just beyond the fork of Rs , Sc_2 a short distance from its tip; R_2 just beyond fork of $R_2 + 3 + 4$, $R_2 + 2$ thus being present but very short to punctiform; $m-cu$ shortly beyond the fork of M .

Abdomen in both sexes black throughout. Male hypopygium (Fig. 10) with the basistyle, b , narrowed at tip, the apex produced into a flattened yellow obtuse lobe, its inner or mesal edge with a linear series of about six spinous setae; remainder of apical lobe glabrous but the darkened portion of style with abundant setae. Outer dististyle, od , gently curved, the apex narrow. Inner dististyle, id , more or less clavate, provided with setae and short spines. Phallosome, p , broadly depressed.

Habitat.—Cuba (Oriente).

Holotype, ♂, Pico Turquino, Sierra Maestra, altitude 3750 feet, at light, June 12, 1936 (Acuña). Allotopotype, ♀.

At the suggestion of Director Acuña, I take pleasure in naming this interesting species in honor of Dr. P. J. Darlington, Jr. The nearest ally is *Gnophomyia* (*Gnophomyia*) *flagrans* Alexander (Costa Rica), which has much the same coloration. The latter fly is larger and bulkier, with broader wings and with the venational details distinct, having R_2 before the fork of $R_3 + 4$.

Gonomyia (*Progonomyia*) *bifasciolata* sp. n.

Antennae weakly bicolorous, the flagellar segments brownish black, their proximal ends yellow; mesonotal praescutum with three polished black areas; legs yellow, the tips of the tibiae and the outer tarsal segments darkened; wings pale yellow, with two pale brown crossbands; Sc_1 ending shortly before fork of Rs ; male hypopygium with the basistyle produced at tip into a powerful, gently curved spine.

Male.—Length about 5 mm.; wing 5 mm.

Female.—Length about 8 mm.; wing 6.2 mm.

Rostrum brownish black; palpi black. Antennae with scape and pedicel light yellow; flagellar segments bicolorous, brownish black to black, with the proximal ends of the segments narrowly yellow, on the outer segments becoming

uniformly darkened; flagellar segments passing through oval, long-oval to cylindrical; segments (male) with a dense white pubescence and relatively short verticils; in the female, the verticils are relatively longer, exceeding the pubescence. Head light yellow to brownish yellow.

Pronotum and lateral pretergites clear light yellow. Mesonotal praescutum with the ground-color obscure yellow, with polished black areas on the cephalic portion of the otherwise brown median stripe, and with broad lateral areas that nearly reach the margins of the sclerite; scutum blackened, the median area a little paler and more pruinose; scutellum brown, darker medially at base; mediotergite blackened, sparsely pruinose, pale laterally; pleurotergite pale on dorsal half, more blackened ventrally. Pleura yellow, with a more blackened, pruinose area on anepisternum, and a reddish brown pruinose area on ventral sternopleurite. In the female, the dorsal area is more continuous behind, involving the dorsal pteropleurite. Halteres obscure brownish yellow, the knobs darker, with yellow apices. Legs with the fore coxae darkened, the remaining coxae reddish yellow; trochanters yellow; femora and tibiae yellow, the tips of the latter narrowly but conspicuously dark brown; tarsi yellow, the basitarsi darker apically; remaining tarsal segments brown. Wings (Fig. 8) pale yellow, with two pale brown crossbands, the more basal lying before origin of *Rs*, extending from cell *R* to posterior margin in outer end of cell *2nd A*; second band at cord, completely traversing the wing, darker in the stigmal field; veins chiefly pale, darker in the clouded areas. Venation: *Sc* relatively long, *Sc*₁ ending shortly before fork of *Rs*, *Sc*₂ at near mid-distance between origin of *Rs* and tip of *Sc*₁; *R*₂₊₃₊₄ shorter than *R*₁₊₂, the latter subequal to *R*₃₊₄; cell *2nd M*₂ about one-third longer than its petiole; *m-cu* shortly beyond fork of *M*.

Abdominal tergites of male brown, variegated by paler areas, the sternites more uniformly yellow; in the female, the abdomen more uniformly blackened; hypopygium pale yellow. Male hypopygium with the basistyle produced into a powerful, gentle curved spine. Outer dististyle a flattened, nearly hyaline blade, the margin near apex weakly toothed.

Habitat.—Cuba, Panama, Mexico.

Holotype, ♂, Potrerillos, Chiriqui, Panama, altitude 3500 feet, May 12, 1934 (D. V. Brown). Allotype, ♀, A. Naranjo, Pico Turquino, Sierra Maestra, Oriente, Cuba, altitude 1650 feet, June 12, 1936 (Acuña).

Paratypes, numerous ♂ ♀. Vergel, Chiapas, Mexico, May 18–June 25, 1935, altitude 800–1200 meters (Damf) Nos. 4192, 4193, 4203, 4207, 4239, 4259, 4260, 4267, 4268, 4320, 4321, 4350, 4353, 4398, 4416, 4430, 4503 and 4641; ♂ ♀, Escuintla, Chiapas, altitude 80 meters, November 11, 1930 (Damf), No. 1814; El Zapote, Chiapas, altitude 450 meters, November 15, 1930 (Damf), No. 1867; Santa Isabel, Chiapas, altitude 800 meters, November 16, 1930 (Damf), Nos. 1879, 1880, 1881; Esmeralda, Chiapas, altitude 500 meters, November 18, 1930 (Damf), No. 1924.

Gonomyia (Progonomyia) bifasciolata is entirely distinct from the other described species of the subgenus, differing especially in the bicolorous antennae, bifasciate wings, and the structure of the male hypopygium, especially of the basistyles.

***Erioptera (Mesocyphona) subdulcis* sp. n.**

Belong to the *dulcis* group; general coloration dark brown; legs yellow, the femora with a narrow, scarcely evident, subterminal, brown ring; wings dark brown, handsomely patterned with whitish areas, including a series of marginal spots at ends of longitudinal veins, and a nearly transverse and parallel-sided white crossband at cord.

Female.—Length about 3.5 mm.; wing 3.6 mm.

Rostrum and palpi black. Antennae black throughout; flagellar verticils elongate. Head chiefly dark brown.

Pronotum brownish black. Mesonotal praescutum dark brown, indistinctly striped longitudinally with brownish yellow; posterior sclerites of mesonotum more uniformly darkened. Pleura black, with a dirty white longitudinal stripe, extending from behind the fore coxae to the base of abdomen, passing around the base of halteres. Halteres pale, the knobs dark brown. Legs with the coxae brownish black; trochanters obscure yellow; femora yellow, with a paler brown to yellowish brown subterminal ring that is very poorly evident; remainder of legs yellow. Wings dark brown, handsomely patterned with whitish areas that are confined to the vicinity of the veins; costal area slightly more yellowish; white areas arranged as follows: Arculus; origin of *Rs*; *Sc*₂ and fork of *M*₃₊₄; a nearly transverse band at cord, extending from costa to vein *Cu*, almost parallel-sided; large, conspicuous white areas at ends of all longitudinal veins excepting *R*₅, largest on *R*₁₊₂ and *R*₃; veins pale brown, pale yellow where traversing the white areas. Venation: Elements of cord in almost transverse alignment, as shown by the white crossband that lies along the cord.

Abdomen dark brown, not or scarcely variegated by brighter.

Habitat.—Cuba (Oriente).

Holotype, ♀, Pico Turquino, Sierra Maestra, altitude 5100–5200 feet, June 12, 1936 (Acuña).

Erioptera (Mesocyphona) subdulcis is generally similar to certain regional members of the *dulcis* group, differing especially in the scarcely evident femoral rings and in the nature of the wing-pattern, especially the conspicuous white band at the cord.

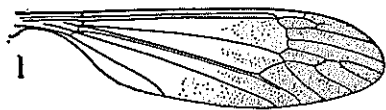
Taxorhina (Taxorhina) violaceipennis Alexander.

Pico Turquino, Sierra Maestra, altitude 3750 feet, June 12, 1936 (Acuña). Loma del Gato, Sierra del Cobre, altitude 2600–3325 feet, September 25–30, 1935 (Acuña, Bruner & Scaramuzza).

EXPLANATION OF FIGURES

(Symbols: Male hypopygium,—*b*, basistyle; *id*, inner dististyle; *od*, outer dististyle; *p*, phallosome; *t*, tergite.)

- Fig. 1.—*Dolichopeza (Megistomastix) deveza* sp. n., venation.
 Fig. 2.—*Shannonomyia phragmophora* sp. n., venation.
 Fig. 3.—*Shannonomyia mesophragmoides* sp. n., venation.
 Fig. 4.—*Shannonomyia bruneriana* sp. n., venation.
 Fig. 5.—*Shannonomyia brevicula* Alexander, venation.
 Fig. 6.—*Hexatoma (Eriocera) juliana* sp. n., venation.
 Fig. 7.—*Gnophomyia (Gnophomyia) darlingtoni* sp. n., venation.
 Fig. 8.—*Gonomyia (Progonomyia) bifasciolata* sp. n., venation.
 Fig. 9.—*Dolichopeza (Megistomastix) deveza* sp. n., male hypopygium.
 Fig. 10.—*Gnophomyia (Gnophomyia) darlingtoni* sp. n., male hypopygium.



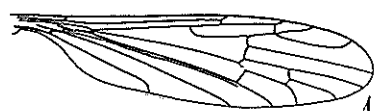
1



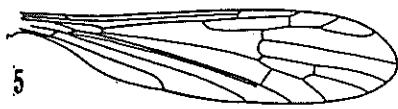
2



3



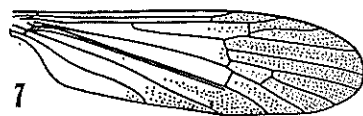
4



5



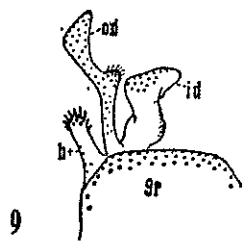
6



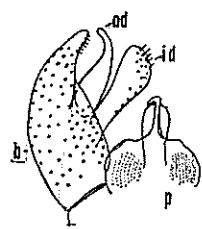
7



8



9



10